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ABSTRACT

Publication is at the heart of scholarship. Traditionally, print media has been the vehicle for communicating research results and scholarly thought. Recently, electronic journals have been increasing. This paper explores, from a scholarship perspective, the rationale for publishing electronic journals. It also examines why scholars publish; the life-cycle of scholarly thought; lack of timely feedback; costs; and limits of print journals. The following advantages of electronic journals are identified: increased speed; collaboration; and the availability of different models. The problems with electronic journals identified are credibility; accessibility; permanence; and an ever-changing technical environment. The paper uses "Interpersonal Computing and Technology: An Electronic Journal for the 21st Century" as an example of a scholarly, peer-reviewed, electronic journal; the contents of an issue are appended. (Contains 16 references.) (JLB)

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Title:

Publishing and Editing an Electronic Journal on the Internet

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Abstract

Publication is at the heart of scholarship. Traditionally, print media has been perhaps the most important vehicle for communicating research results and scholarly thought. Experimentation in publishing electronic journals (ejournals) began in the past two decades, both in North American and Europe. This paper explores, from a scholarship perspective, the rationale for publishing electronic journals. We will examine why scholars publish, the advantages and disadvantages of various media, and the issues of credibility, accessibility, and permanence within an ever-changing technical environment. *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century* (IPCT-J) will be used as an example of a scholarly, peer-reviewed, electronic journal.

Publishers of electronic journals need to be first and foremost concerned with that which every other publisher of scholarly journals is--credibility, access, and permanence--all within an every changing technical environment.

INTRODUCTION

Publication is at the heart of scholarship (Cohen, 1993): part and parcel of academic life and function. Traditionally, print media has been perhaps the most important vehicle for communicating research results and scholarly thought.

Electronic Publishing

Experimentation in publishing electronic journals (ejournals) began in the past two decades, both in North American and Europe. While there have been many models of ejournals over the years, it has only been recently that more than a handful have survived on non-commercial networks (e.g., other than networks such as DIALOG; Prodigy)[2]. In early 1993, there were probably less than three dozen such journals in the humanities that are strictly non-commercial and electronic, and perhaps double that, if the hard sciences are included. Some ejournal publishers are non-profit, university publishers. However, hardly any of the electronic journals (ejournals) are peer refereed. As the number of ejournals increases, there is a need for understanding--for development and research concerning this new vehicle for the dissemination of scholarly work.

This paper will explore, from a scholarship perspective, the rationale for publishing electronic journals. We will examine why scholars publish, the advantages and disadvantages of various media, and the issues of credibility, accessibility, and permanence. *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century* (IPCT-J) will be used as an example of a scholarly, peer-reviewed, electronic journal.

Testing the Waters

In 1992, promoting the use of technology in the classroom was one of the goals of the Center for Teaching and Technology at Georgetown University's Academic Computer Center. One avenue towards this goal was to bring scholars from around the world together to discuss ideas, to tap their expertise, and to communicate research results so that everyone can learn.

Eventually, I thought a scholarly journal might be one way to accomplish a part of this goal. Since the Center for Teaching and Technology is part of the Academic Computer Center, an journal in electronic form seemed a natural. Still, before launching a journal in any format, many decisions needed to be made. In order to gather some marketing data, I formed the *Interpersonal Computing and Technology* Discussion list (IPCT-L), hoping that the list would be valuable in determining if a market existed for a new journal, to find potential authors and subscribers, and to locate potential editors and reviewers.

I intended that IPCT-L should focus on the uses of instructional technology, but, from the first, the list attracted a number of communications scholars interested in computer-mediated communication, amongst whom was Dr. Gerry Phillips, Professor Emeritus of Speech Communication, The Pennsylvania State University.

Phillips and I entered into early discussions concerning the proposed journal. In late summer of 1992 we decided to proceed with the journal. Phillips offered his considerable experience and editorial services as Editor-in-Chief and we asked Mauri Collins, a doctoral student in Instructional Systems at Penn State, (and the other IPCT-L listowner and

moderator), to assume the responsibilities of Managing Editor, and join is to form the first editorial board, with Mark Evangelista providing technical support at Georgetown, and using computer time and storage space provided by both the Academic Computer Center and Information Systems at Georgetown and the Center for Academic Computing at Penn State.

SCHOLARSHIP

Why do scholars publish?

It is important to understand something about scholarship before going too much further into the details of publishing and editing an electronic journal. Scholars basically author for two reasons, the first being, to communicate their research and ideas to others. As a by-product of the peer recognition from this, promotion, tenure and academic or professional honors are derived from their contributions to the field (Smith, 1991).

The Life-Cycle of Scholarly Thought

How does scholarship progress? Where do ideas come from? How do they move from ideas to published articles? Researchers and scholars generate ideas through such activities as observing, discussing, and reflecting. After this brainstorming or formation step, the person often drafts the idea or hypothesis and at some point decides to circulate a draft to colleagues. This can be done through conference presentations or the mail, fax or electronically in the prepublication stage. If the material is favorably received, the author may then submit the work to a journal for peer review. Passing muster here results in the article being published. Some typical postpublication steps include dissemination to individuals and libraries, indexing, and abstracting. Once other scholars react to the work with their feedback, new ideas are shaped or new research hypotheses generated and the cycle continues.

[INSERT FIGURE "SCHOLARSHIP" ABOUT HERE]
(See Appendix A for figure "Scholarship)

What is wrong with this model?

I don't think there is anything wrong with the model per se. Yet there are factors in the current implementation of the print journal model that, when not adequately addressed, result in inefficiencies and ineffectiveness, posing a threat to the scholarly process as we move toward the 21st century.

Consider, for example, library acquisitions. With books and journals going out of print quickly, and interlibrary loan often not meeting the needs of scholars, libraries are inclined to acquire as many printed materials as they can afford. In business this has been described as the "just-in-case" model of inventory. Acquisitions are made just in case someone needs them (quickly). Compare this to a just-in-time model where journal articles are available online to scholars at the library or at their own workstation only when and if they are needed.

Lack of Timely Feedback

Part of the scholarship cycle involves timely feedback to the author. If one is working on AIDS research, any delay in moving scholarly endeavors forward could mean life or death--literally. Yet delayed feedback to a historian seems much less time sensitive. As an example of the typical time lag in print journals lets look at the article I wrote in 1990, informally circulated to a few people during the beginning of 1991. I submitted it to educational technology journal in October 1991. It was peer-reviewed and accepted for

publication in October 1992. Finally it was printed and distributed late in 1993--2.5 or 3 years after I wrote it. I may now be able to remember the title, but even I can't remember the main points.

Formal publication doesn't complete the cycle. Readers need to receive a copy of the article, either through the library or individually. Then they have to respond. If the reader chooses to comment to me directly the response time may be relatively short. However, should he or she choose to send their response for peer review to the journal, or even as a a Letter to the Editor, it might take from one to three years for that feedback to reach me.

This lack of interactivity in the print process is becoming more and more a fatal flaw in the scholarship cycle. The original author's thinking has moved on from what was being articulated those many years previously. Regardless of whether the subject matter was history or biology or literature, had there been more timely feedback, new ideas that are now lost could have been generated (Harnad, 1991). This is why scholars, especially in the natural sciences, mathematics and technology, do not rely on print journals to keep current in their field.

Costs

The cost of scholarly journals is rising at a rate much greater than the rate of inflation or of libraries' budgets and funding sources. There is little by way of cost savings when moving from print to electronic form regarding editing or peer review. It should be noted that the cost of reviewing, editing, and even the production costs associated with electronic journals are often "hidden" because of the volunteer or subsidized labor of editors, reviewers and publishers. I do think there are some significant cost savings involved in ejournal production, and especially delivery (e.g., no postage costs; no paper and printing costs to the publisher). These costs savings can be passed to the subscribers.

Limits on the Size of Print Journals

There are many economic factors that put pressure on print journals to limit the number of pages published, causing editors and publishers to lower the amount of scholarly work accepted. Additionally, there are tendencies to reject such things as research showing no significant differences, and feedback from readers such as Letters to the Editor lose their places to articles reporting original research results.

ADVANTAGES OF ELECTRONIC JOURNALS

There are the obvious advantages such as the lower costs for electronic production and distribution. Secondly, the acceptance rate for articles is not limited by economic factors (this assumes there is a pool of scholarly work that was rejected for economic reasons and not because of lower quality than that accepted for the paper journal). Some other significant factors are discussed below.

Increased Speed

There is no question that the production and distribution steps during publication can be sped up by moving to epublishing. Regarding the peer review process, there can be gains in speed, but not if the reviewers let the electronic copies sit on their disk, as is often the case with papers for review sitting on their desks. But it is at the feedback link in postpublication that most benefit could be derived from epublications. Metz (1991) points out that a community of scholars can be more dynamic and interactive in their commentary to authors in a way that is currently impossible with paper journals.

Collaboration

Much of the idea above regarding speed dovetails with the notion of building knowledge collaboratively. Electronic media allows more interactivity among scholars within and between disciplines. The potential exists not only for more collaborative, international effort, but also for dissemination and scholarship among authors in different fields of study. The electronic network is able to provide, as Harnad (1992) points out, cross-disciplinary review and discussion of research.

Different Models

Morris (1989) characterizes the impact of technology in three stages. First, technology is used to automate that which has been done. Secondly, tasks change because we can do things we couldn't do before. Finally, society itself changes. Langenberg (1989) tells us that computers and telecommunications are merging to form information technology. That is, the power of computers to store and manipulate data, along with the speed and convenience afforded by telecommunications to transfer data, equals an unprecedented ability to handle information using technology.

So, what impact will this emerging information technology have upon society--in this case on scholarly society? King (1991) states:

> Just as radio offered possibilities unimagined by the newspaperman, and just as television offered possibilities unimagined by the radioman, so the electronic network medium will provide opportunities for accessing and using information which so far have not been imagined by the print mind. (p. 6)

While much of what we have been doing in epublishing mimics traditional printed journals, there are those persons who are anxious to realize new and different models in epublishing. *IPCT Journal* pretty much by design, uses the same model as print journals. However, there are those, especially in the sciences, who are working with ejournals which clearly publish new images, such as 3-dimensional models, that could not be done with print technology. As sound and animation are more commonly used, many exciting things will appear in journals that were impossible to do before epublishing. Similarly, software will allow sophisticated searching strategies and linking of current issues to back issues or to other journals--in ways impossible with print technology. Finally, there are authors such as Harnad (1990) who see "scholarly skywriting" using electronic media as significantly changing the scholarly society.

One of the keys to many of these advantages is the fact that epublishing is free from time and space limitations. Distributions and correspondence throughout the scholarship cycle are not limited by time or geography. Review, distribution, feedback and submissions can take place in an instant from around the corner or across the world.

PROBLEMS WITH EJOURNALS

While ejournals facilitate communications among scholars, they are not a panacea. However, I believe many of the problems ejournals face are overstated and overvalued. Mention is often made of the increased possibilities for plagiarism, or the question raised of the credibility of a scholarly journal that vies for space with electronic junk mail or sometimes does not even have enough structure to have an ISSN.

There are still some issues that are significant and which will not easily be overcome. Some are faced by any (new) journal regardless of the media in which it is published; other problems are unique to the electronic medium. For instance, there are other activities which fulfill scholars' need to interact (quickly) with colleagues. While it is

expensive to travel, conventions, seminars, workshops, and newsletters all provide scholars with opportunities to respond to one anothers' work, and to set forth their own research and ideas.

Another example has to do with the downside to one of the advantages to electronic publishing (epublishing) mentioned above. While publishers and editors are not limited in the number of pages they can published due to cost, a higher acceptance rate often tends to give the mistaken perception of lower prestige to the ejournal.

But as many authors note (e.g., Okerson, 1991; Harnad, 1990; Amiran et al., 1991; Shamp, 1992; Bailey, 1992; Manoff, 1992), perhaps the biggest problems faced by ejournals are those faced by any (new) journal. John Franks (1993) speaks of the primary functions of publishers as credentialing, archiving and marketing. I prefer to think of my function as publisher as ensuring credibility, accessibility, and permanence (Harrison, 1991). Further, all these functions are within a constantly changing technical environment.

Credibility

Without scholars' submissions or without readers, there is no journal. The higher the credibility of the journal, the higher the quality of submissions received. There simply may not be enough peer interaction surrounding any new journal to generate the authorship and readerships necessary. Additionally, an ejournal is often not considered an official university activity. This often lessens the perception of credibility in scholars' minds. But the biggest threat to an ejournal's credibility is that most promotion and tenure committees do not count an article in ejournals equally (or at all!) compared to that same article in a print journal.

There are at least two ways to work toward overcoming problems with credibility. The quality control aspect of journals is derived from the peer-review process. An absolute must therefore, in building a journal's credibility is to have a top notch editorial board and the best referees. *IPCT Journal* has a world-class group of editors and associate editors (their main function is reviewing submissions) and submitted articles are held to the highest standards of peer review.

The problem of promotion and tenure committees not giving authors credit for work done in ejournals may have to wait until administrators and senior faculty on promotion and tenure committees retire. As the new cohort of leaders move into these positions, they may be more familiar with ejournals and their merits.

Accessibility

It doesn't matter if one has the best scholarly journal in the world if no one knows that it exits or how to access it. Again, the cost and economics of epublishing could change. The networked-based ejournals have been able to gain a foothold because networks like Bitnet and the Internet are heavily subsidized. If these networks lose their subsidies and become commercialized, the economies may change drastically and seriously affect the access by users to ejournals (Bailey, 1992).

Potential subscribers often have major technical difficulties with equipment, or getting training and other information to access the internet, let alone in finding ejournals. Secondly, users often need training on the internet resources (the electronic highway is *there*, but not everyone knows how to use it). Even if the potential subscriber has the equipment, and the knowledge to use the system, finding out about a particular journal of interest, or even if one exists, is still a daunting task.

Even the standards for citation of articles published by ejournals are in their infancy. While some authorities (Tuttle, 1991) see citing ejournals as just like any other publication, others, including *IPCT Journal's* Managing Editor, suggest that information needs to be included in the citation regarding a document's primary archive site.

Another problem ejournals have is that very few are abstracted or indexed through common services. To a large extent, scholars' awareness of a particular article germane to their own interests and work is dependent upon searching for an abstract in standard sources. Until there is a critical mass of significant ejournals (probably meaning sufficient demand from customers), indexers and abstraction services are unlikely to include ejournals.

The publisher and editorial board spend a good deal of time discussing copyright. From a scholar's perspective, communicating their ideas and research findings to the largest audience possible is one of their chief goals (as long as the proper attribution is given to their work). Yet publishers who market and distribute print journals have a more limited and limiting concept of "audience" as those who will pay for subscriptions. Since scholars almost always transfer copyright to the publisher before publication, a conflict of purposes arises between the commercial goal of the publisher and the communications purpose of the scholar.

Ejournals, for the most part, are more aligned with the scholar's point of view. To the scholar, access to ideas supersedes ownership of ideas (Metz, 1991). Most ejournals, including *IPCT Journal*, ask authors only for first publishing rights rather than exclusive rights. *IPCT Journal* allows authors to retain control over subsequent individual use of their work, as long as mention is made in reprints that the article first appeared in *IPCT Journal*. *IPCT Journal* retains copyright to the compilation, and can grant to libraries, etc. the rights to use the journal in its entirety.

Another topic that the editors and publisher discussed at length was the distribution format. There are many models that ejournals use. Some ejournals distribute each article as soon as it has been finally accepted. Some require the journal subscriber to be a member of a related discussion list. *IPCT Journal* started that way but opened a separate "journal only" list--so that subscribers such as libraries could receive the journal's table of contents without the conversation generated on the discussion list. Others send out a group of articles, including a table of contents and the full text. At *IPCT Journal*, we have chosen to send out a Table of Contents (see Appendix 1), with instructions on how to retrieve the full text for each article via Listserv, gopher or FTP. Our primary motivation for this decision was that scholars read articles, not journals. Other considerations include the size limitations on some email accounts. IPCT has over 1500 subscribers from 42 countries in February, 1994. Some subscribers, especially in countries outside North America, have severe limitations regarding input to their email account. Other subscribers are on commercial networks (e.g., Prodigy; CompuServe) and are charged for each piece of mail they receive (depending more or less also on the length of each piece of mail).

Some ejournals will also mail out paper copies of each issue or of all articles in a year, and some disseminate via CD-ROM, floppy disk and fax. Each has their unique advantages and disadvantages, and many would work for libraries and individuals not on the internet. *IPCT Journal* has been distributed only via the internet. Requests for other forms of distribution will be decided upon on a case by case basis.

While we can discuss gophers and FTP and Listserv and World Wide Web, all of which are important to access, the biggest effort to overcome the problem of accessibility is in our efforts to have ejournals abstracted through common sources. While it is important that persons in the internet have access to ejournals, it is even more important that all scholars know of the literature being built and the research being done, where it is stored and how to retrieve it (even if just from the library or other workstation).

One way to find out about ejournals is to subscribe to the related discussion lists. For instance, if you are interested or working in distance education, there are many discussion lists in that field. Subscribing to those electronic conferences is one way to find out about ejournals in that discipline (e.g., *The Online Journal of Distance Education*). In

the case of *IPCT Journal*, it was conceived on the IPCT-L discussion list and is regularly mentioned there.

Finally, the acceptance and accessibility of ejournals will greatly improve when scholars are able to search for them from their workstation, in an easy and reliable way.

Permanence

Authors are extremely concerned, and rightly so, with the ephemeral and transitory perception of electronic text. No scholar wants to place his or her work in a journal that is destined to disappear or die. Ejournals are no exception--in fact, if pasthistory is any indication, ejournals do not have a good track record with regard to permanence.

Whether an ejournal ceases publication or not, their archives location is often problematic. This is one area where libraries can offer a great service by taking over the archiving of ejournals from computer centers. The mission of computer centers is clearly not to preserve and maintain scholarship, whereas a case could be made that this is a function of (some) libraries (Bailey, 1992). There may be a consortium of libraries or publishers that emerge over the next couple years to take on this role, too.

Technical Aspects

It doesn't matter if you publish the best journal in the world if readers find it too hard to read. Ease of readability in this media has a significant bearing on the format in which journals are published, (e.g., PostScript, LaTeX, SGML). *IPCT Journal* is published only in ASCII text. This limits the graphics, tables, half-tones, mathematical and scientific notations that can be used within its articles. That works fine for now for the disciplines (the humanities) which are the source of most articles that are accepted for *IPCT Journal*. But it would not work within many scientific or technical disciplines.

Additionally, there are issues such as increasing file size across the Internet and the limited email account space for some users, that cause network performance problems. In this formative period, there is a general lack of user-friendly, "reader" software and lack of sophisticated browsing capabilities.

Some scholars argue (Metz, 1991), that the fluid and changeable nature of ejournals is one of their most powerful assets. The ability to alter and modify the work based on interaction and feedback to the author is seen as a real advantage. But this advantage also creates a concern for the security of ejournal text. While we have an "official" copy of *IPCT Journal* issues on the gopher at GUVM, once distributed, there is no way to know whether versions of the journal's articles that have been unofficially modified show up elsewhere.

CONCLUSIONS

Even if ejournals are less expensive, easier to access, or save time, this is not going to allow ejournals to compete with print journals if the content of the ejournal is not perceived to be of the highest quality (Willis, 1991). Having a world-class group of editors and reviewers, along with the highest standards for peer review, are necessary ingredients for the credibility of any journal.

Scholars seek to communicate with their peers. Ejournals are especially efficient at this--provided most of those peers are fluent in using the internet. Scholars also seek to derive credit toward promotion and tenure with their scholarly activities. Ejournals currently do not fare as well in this regard. Publishers and editors need to pay particular attention to organizational acceptance as a critical factor in the success of electronic scholarly publishing.

IPCT Journal strives to build its credibility, permanence, and accessibility in much the same way a new print journal does. This is done within a technical environment that

poses new challenges, yet offers vast opportunities. Still, the functions of journal publishing and editing remain the same in many significant ways. It is the earnest desire of the publisher and editors of *IPCT Journal* that we contribute to scholarly communication in ways meaningful to our authors and readers.

Notes

1 Parts of this paper are modified from an article to appear later this year in the *Journal of the American Society for Information Science*.

2 I am making a distinction here between an electronic journal, which is published in only electronic form, and an online version of a (parallel) print journal (e.g., an electronic version of the *Harvard Business Review* available through an online service).

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1. Letter from the Publisher
2. Retrieval Instructions for Articles
3. Table of Contents and Abstracts
4. Editorial Board
5. Copyright Statement

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1. Letter from the Publisher

Dear IPCT Journal Readers,

This issue of Interpersonal Computing and Technology: An Electronic Journal for the 21st Century, marks the beginning of our second year of publication. It is with a renewed sense of our moving scholarship forward that the Editors and Publisher of IPCT Journal enter this new year. I would like to say just a little about our perceptions of the challenges of publishing an electronic journal at this time in history.

First and foremost, scholarly journals need top-quality submissions. Without that, no amount of marketing or persuasion is going to cajole busy people into reading the articles. Regardless of the longevity of a journal, or the medium in which it is published, people involved with publication are constantly aware of at least three characteristics that measure their long-term viability and success: credibility, access, and permanence.

The most significant aspect of credibility comes from the integrity of the peer review process. In this regard, the

professional merits that distinguish the Editors and reviewers of a journal are perhaps the single biggest factor. IPCT Journal has a world-class and international group of editors and associate editors who have diligently reviewed submissions to the highest standards.

It is my belief that the publishers of electronic journals (ejournals), need to do everything possible in the areas of ensuring access and permanence. With libraries, computer and technology facilities, and various consortia all working together with ejournal publishers, the problems involving lack of access and permanence will be solved sometime in the future. Until then, ejournal publishers do what they can to increase access to their journals, and to lessen fears authors have regarding the non-permanence of ejournals.

At one level, it is the ever-changing technological environment that ejournals exist in that has an impact upon access and permanence. For example, earlier this month we announced the availability of IPCT Journal via gopher, (see instructions under Retrieval below). This certainly increases network users' access to the Journal. Yet it does nothing for increasing the awareness of IPCT Journal in the largest group of persons who may find the articles useful--those persons not on the Internet.

There are a couple of problems that are unique to ejournals and that hinder the establishment of their credibility. For example, ejournals are rarely abstracted and indexed on mainstream services. In seeking high quality submissions, the biggest obstacle currently is that most promotion and tenure committees don't recognize articles published in ejournals equally (or at all!) as those in a print journal. The solution to this problem may have to wait until the group of administrators and people on T&P committees changes to persons more familiar with technology and having increased understanding of ejournals.

Several traditional measures of a journal's value are not available to electronic publishers on the Internet. For instance, people ask me "how many subscribers does your journal have?" The response to even a simple question like that is confounded. Yes, I can say that there are 1514 electronic addresses on the IPCT-J@GUVM.GEORGETOWN.EDU subscription list. But a significant number of those subscribers are local NetNews servers. There is no way to tell how many times the IPCT Journal is exploded on these local servers, nor how often the Table of Contents of an issue is cross-posted to lists other than IPCT-J and IPCT-L, nor how

many times an issue or individual articles are accessed via gopher or from the LISTSERV at GUVM.

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It is with sincere appreciation I thank all the Editors for a job well done this past year. We will continue to bring the best articles we can find to our readers in future issues. We again solicit your submissions. Please let me know what you find useful, what you would like to see more or less of, and how the Journal can be improved.

Starting with this issue we will be including page numbers. This should help when articles in the Journal are quoted and cited. Because we have no way of knowing how the pages will be formatted on screen (or when printed) on your particular system, we have arbitrarily set the page length at 50 lines. Each journal will be numbered from Page 1, starting from the beginning of the Table of Contents. Page numbers for all articles will appear on the Table of Contents and again in the heading of each article.

Turning to this issue of IPCT Journal, a new and noteworthy feature is a Book Review by John Laurence Miller of Seymour Papert's book, _Turning the Computer into the Children's Machine_. I think you will find it interesting and the beginning of many useful book reviews to come in the Journal.

Regards,

Zane L. Berge, Publisher
BERGE@GUVAX.ACC.GEORGETOWN.EDU

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2. Retrieval Instructions for Articles

GOPHER
IPCT Journal, including all back issues, is available via gopher from GUVM.CCF.GEORGETOWN.EDU (or 141.161.71.1). Point your gopher to this location (port 70) and select from the top menu, "LISTSERV maintained Files and Notelogs/." Alternatively, coming in via Gopher menus, from "Other Gopher Sites" or "International Gopher Networks," follow the menus down: North America/USA/Washington D.C./Georgetown University/Information Systems/Listserv maintained Files and Notelogs. (Note: The IPCT-L Discussion List Notelogs can be found here, too.)

LISTSERV
Articles are stored as files at LISTSERV@GUVM.BITnet. To retrieve a file interactively, send the GET command appearing both before and after the article abstract to LISTSERV@GUVM.

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The GET command GET IPCTV2N1 PACKAGE will retrieve the entire issue.
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The listserv's Internet address is LISTSERV@GUVM.GEORGETOWN.EDU

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FTP

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If you experience difficulties with these instructions, please consult your local site administrator for specific instructions that may apply to your system.

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3. Contents

THE NEW BRUNSWICK NET: THE 21ST CENTURY NOW

Rory McGreal, TeleEducation New Brunswick, Canada

To retrieve this article GET MCGREAL IPCTV2N1

ABSTRACT

The New Brunswick Net: The 21st Century Now

The province of New Brunswick, Canada is implementing one big distributed electronic highway for the use of the public and private sectors in every part of the province. The strategic drivers for this action are the desire to attract high technology companies; to provide local companies with a competitive advantage; to improve government services and increase revenues while cutting costs; and to extend education, healthcare, justice and other government services. Stakeholders identified are: the provincial and federal governments, private sector companies including the telco and cable companies and local communities. New Brunswick has an advanced fully digital fiber optic infrastructure that gives it a competitive advantage over other

states and provinces, allowing it to implement 21st century technology province-wide now.

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AN EVALUATION OF THE ELECTRONIC CLASSROOM: THE AT&T TEACHING THEATRE AT THE UNIVERSITY OF MARYLAND

Kent L. Norman and Leslie E. Carter, The University of Maryland

To retrieve this article GET NORMAN IPCTV2N1

ABSTRACT

This report summarizes reactions to the AT&T Teaching Theater at the University of Maryland. The AT&T Teaching Theater is an electronic classroom outfitted with a high performance workstation at each student desk and the instructorUs podium. Networking and video switching allow for interactive communication, file sharing, distributed control, and collaborative learning experiences. In addition, large screen audio/visual displays are integrated with the system to allow for smooth transitions from one presentation to another. During the Fall Semester of 1991 six different courses were taught in the classroom. Instructors were asked to relate their best and worst experiences in the room in order determine what works, what doesnUt, and what needed to be changed. In addition to the use of the room for computing and audio/visual events, the best uses of the room included sharing of student work on the large screen monitors, collaborative note building, student polling, and collaborative problem solving. The major drawbacks had to do with the need for a more seamless flow of events, the need for pedagogical examples of how best to integrate technology and instruction, ackward and complex connectivity to out of class computer facilities, problems with computer software and hardware, and problems with room architecture.

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TEACHING LANGUAGES WITH NETNEWS

Terri Cononelos, Even Start Literacy Program, Salt Lake City, UT
and Maurizio Oliva, University of Utah

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ABSTRACT

This paper describes an attempt at integrating computer network resources into language teaching. The case of Italian 401-1 taught in Spring 1992 at the University of Utah by Maurizio Oliva is discussed. In this course students improved their language skills by interacting with native speakers. The communication took place especially through postings on the Usenet newsgroup Soc.Culture.Italian, and by Email.

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TELEMATIC JOURNALS AND ORGANIZATIONAL CONTROL: INTEGRITY, AUTHORITY, AND SELF-REGULATION

David S. Stodolsky, University of Copenhagen

To retrieve this article GET STODOLSK IPCTV2N1

ABSTRACT

The peer-review journal is typically accepted as the most reliable format for information exchange in modern societies. Office automation now makes possible a reduction in delays associated with peer review. Advances in computer technology have also made possible the routine use of cryptographic procedures, including secure pseudonymous communication and secret sharing methods, that can safeguard personal integrity and improve adherence to procedural norms. These developments increase the applicability and importance of the journal as an authority structure, thereby making intra-organizational journals increasingly attractive. Such journals can also play a crucial role in combating threats to the organization exacerbated by the new information technologies. In the well functioning organization, information distribution

tends to dominate decision making, therefore telematic enhancements of this function can play an important role in organizational control.

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CLINTON'S ETHOS: EXCHANGING IDEAS ON THE INTERNET

Frank Walters, Auburn University

To retrieve this article GET WALTERS IPCTV2N1

ABSTRACT

Exchanging notes on the Internet is a "great equalizer." People of all types, with all sorts of qualifications, can come together in discussions on a common ground. Presumably, this would mean we could concentrate on the message without "considering" the source. But people still keep requesting credentials and asking for qualifications, and the issue of anonymity in contributions often becomes a real issue in the arguments.

This concern about credentials and qualifications echoes loudly in current political affairs. Recent responses to President Clinton's programs have featured ad hominem attacks by various television commentators and comedians.

Bemoaning this state of affairs, Frank Walters, a network contributor to the LISTSERV discussion list, Clinton@Marist, expressed his thoughts on the elements of rhetorical credibility, equally applicable to face to face or virtual encounters.

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BOOK REVIEW

TURNING THE COMPUTER INTO THE CHILDREN'S MACHINE

John Laurence Miller, York University, Toronto, Canada

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ABSTRACT

Over the last two decades, Seymour Papert has become known, not only for his pioneering work with the programming language, Logo, but also as one of the most important, and most innovative, thinkers in the entire field of education. His new book The Children's Machine represents in essence a refinement and an elaboration of ideas presented in earlier works, rather than a significant departure. The most important new idea, the concept of constructionism, offers an attempt to explain the role of concrete action, in connection with reflective thought, in the emergence of new forms of thought and new cognitive structures. Illustrative examples are taken from a wide range of contexts and domains of knowledge, from cooking and horticulture to cybernetics and elementary mathematics.

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